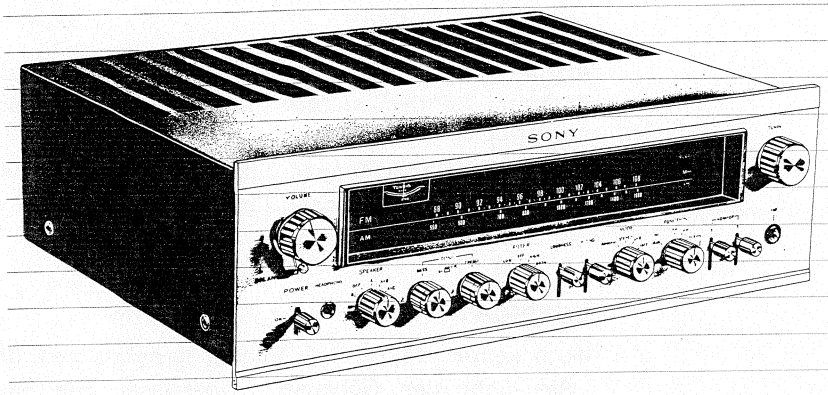
SONY

FM STEREO/FM-AM RECEIVER STR-7055

OWNER'S INSTRUCTION MANUAL/MODE D'EMPLOI/BEDIENUNGSANLEITUNG



OWNER'S INSTRUCTION MANUAL 3
MODE D'EMPLOI 19
BEDIENUNGSANLEITUNG 33

WARNING

- To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
- To prevent fire or shock hazard, do not expose the set to rain or moisture.

AVERTISSEMENT

- Pour éviter toute électrocution, ne pas ouvrir le coffret. Confier l'entretien uniquement à un personnel qualifié.
- Pour éviter tout danger d'incendie ou toute électrocution, ne pas exposer l'appareil à la pluie ou à l'humidité.

VORSICHT

- Um keinen elektrischen Schlag zu bekommen, öffnen Sie nicht das Gehäuse. Überlassen Sie jegliche Reparatur und Wartung qualifiziertem Personal.
- Um die Gefahr eines elektrischen Schlags oder eines Brandes auszuschalten, setzen Sie das Gerät nicht Regen oder Feuchtigkeit aus.

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The sophisticated STR-7055 receiver is designed for professionals and audiophiles by using the most advanced Sony techniques. It consists of a sensitive tuner, a versatile preamplifier, and a powerful amplifier, all contained in a walnut cabinet.

In the fm tuner section, the FET front end uses newly-developed junction FET's in the mixer and r.f. stages, thus providing high sensitivity while retaining the ability to handle strong local stations without overload and spurious responses.
The i.f. section has permanently-aligned solid-state filters and a high-gain, limiter IC for excellent selectivity and stereo separation. The solid-state filters also offer improved fm and a-m selectivity, good a-m suppression, and superb capture ratio. The newly-developed IC in the MPX section cuts down audible distortion, so you can enjoy hi-fi reproduction with low distortion in mono and stereo, and fine fm stereo separation. An effective muting circuit silences all interstation noise as you tune from station to station. This protects the speakers and further facilitates tuning.

The a-m tuner employs triple-tuned solid-state filters and a newly-developed IC with an AGC circuit to maintain high sensitivity, minimum distortion, and superior signal-to-noise ratio. A-m programs are received with an audio quality that will surprise hi-fi oriented ears.

The preamplifier section employs low noise IC's to assure high performance and long-term stability.
The power amplifier section is "direct coupled", so that in the low frequency range, frequency response is improved and high damping factor and low distortion result. A paralleled complementary push-pull power amplifier reproduces the powerful output throughout entire audio range without permitting the slightest trace of distortion to intrude upon the performance.

Three speaker pairs can be connected to the receiver, and a speaker selector turns each pair on and off independently, or two pairs simultaneously. Two pairs of inputs and outputs for tape recorders allow simultaneous recordings and tape duplication, and a binaural auxiliary input jack on the front panel is convenient for temporary use. A multiple-position filter selector inserts the high- and low-cut filters, independently or simultaneously.

The connection and operation of the STR-7055 are quite simple, yet this receiver provides considerable versatility. Please take the time to completely read this manual, so that you can become familiar with the receiver's features and capabilities. Keep this manual for future reference.

TABLE OF CONTENTS

PREPARING FOR USE 4
- Unpacking 4
- Adapting to local power source 4
- System Connections 5
  - Antennas, Speakers, Notes on input connections, Record player, Tape recorders, AUX input connections, Headphones, SQ connection, Ground connection, Power connection

OPERATING INSTRUCTIONS 11
- Location and Function of Controls 11
- Use of the NORMAL/SEPARATE switch 13
- FM or AM Reception 14
- Record Playing 14
- Tape Playing 14
- Recording through the STR-7055 14
  - Notes on recording, Tape/source monitoring
- Tape Duplication 15
- Balancing the Stereo System 15
  - Speaker phasing check, Stereo balance

CARE OF YOUR STR-7055 16
- Cleaning 16
- Trouble Checks 16

TECHNICAL DATA 16
- Specifications 16
- Block Diagram 18

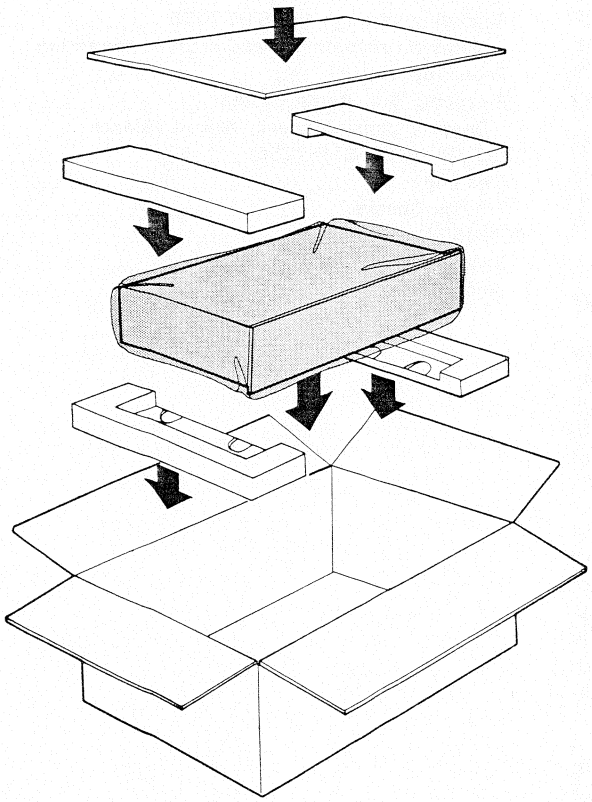
PREPARING FOR USE

UNPACKING

All Sony equipment comes to you carefully packed in cartons designed to withstand the rigors of shipment. Do not throw the carton or associated packing material away; they will come in handy if you ever have to transport or ship the STR-7055.

Inspect your STR-7055 immediately for signs of damage incurred in transit. If damage has occurred, consult your local Sony dealer for further instructions. Once again, save all packing material to help substantiate your damage claim.

When shipping the unit for repair work or simply to another location, the unit should be repacked in the original carton and packing material just as before.

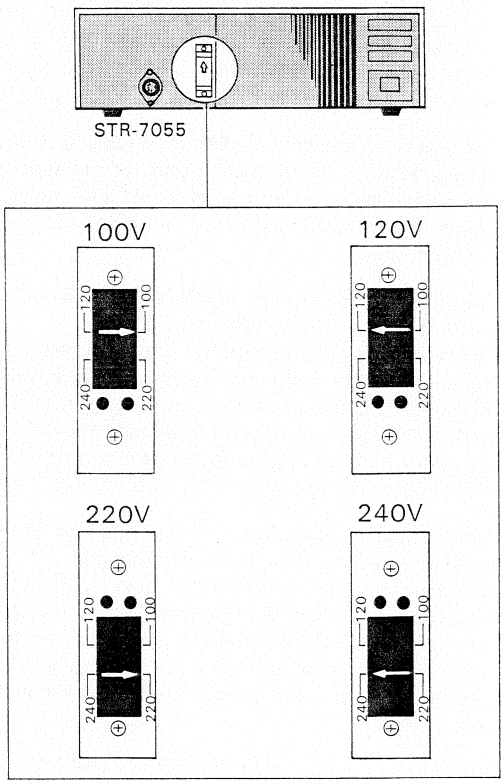


ADAPTING TO LOCAL POWER SOURCE

The STR-7055 available in Canada is fixed to operate on 120 V ac. The STR-7055 available in Europe, operates on either 100, 120, 220 or 240 V ac.

Before operating, check whether or not the STR-7055 is set for the same voltage as your local power source. The voltage selector can be reset as follows:

1. Disconnect ac power cord before proceeding.
2. Loosen the two screws on the voltage selector cover (but do not remove the arrow-marked screw from the cabinet).
3. Move the cover aside so that you can unplug the selector.
4. Pull out the selector and reinsert it so that the arrow on the plug points to the proper voltage marking.
5. After changing voltage, replace the cover.



SYSTEM CONNECTIONS

No doubt you have already decided on a location for your STR-7055. However, before going ahead with the installation, make sure that your choice of location agrees with the following list of DOs and DON'Ts.

DO allow at least one inch clearance around the STR-7055 for ventilation.

DO allow sufficient room behind the STR-7055 so you can make connections to the rear panel without disrupting your entire setup.

DON'T place the STR-7055 in direct sunlight, or near radiators hot-air ducts, or any heat source. The STR-7055 must not be operated where the room temperature is over 45°C (110°F). Also, don't place it in any area subject to freezing temperatures.

DON'T place anything on top of the cabinet which might block the top ventilation holes. Also, don't place the unit on any soft surface which may block the bottom ventilation holes.

DON'T make connections with power on.

DON'T connect the STR-7055 to any voltage other than that indicated by the voltage selector.

After you have found a suitable location for your unit, you can begin making the basic connections described in the following paragraphs. Refer to the overall-system connection diagram on page 7 while making these connections.

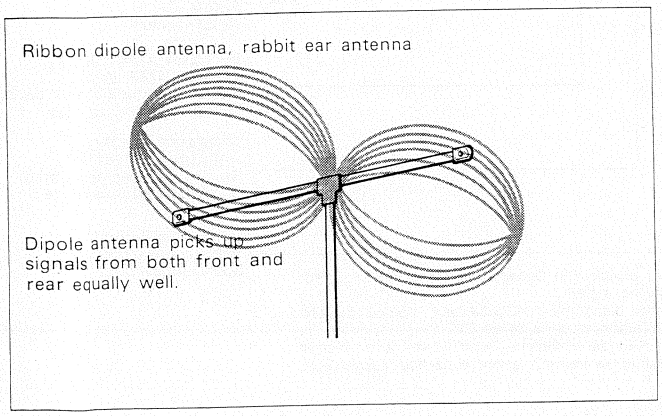
Antennas

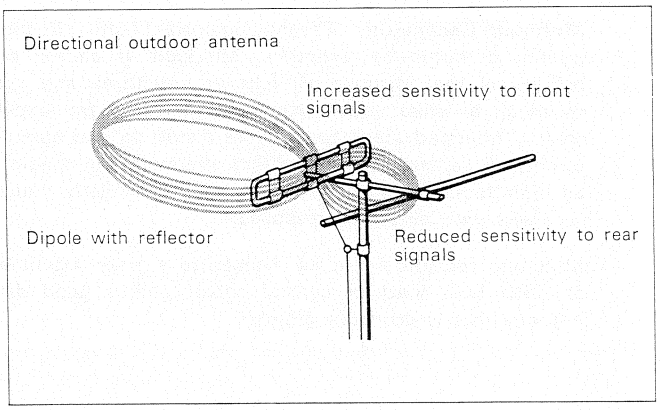
FM Reception

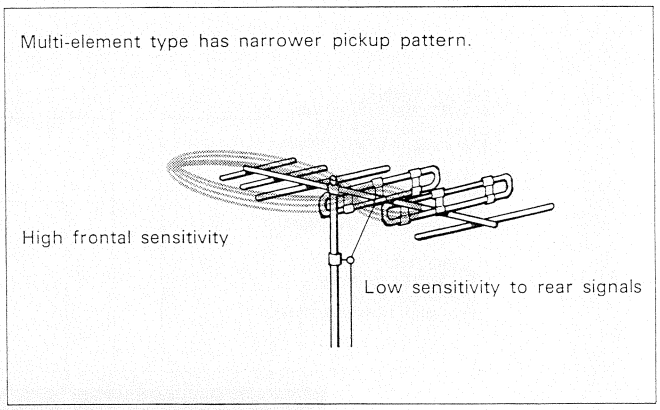
Good fm reception depends not only on the sensitivity of the STR-7055 but on the quality of the received signals.
To improve your fm reception and get the best from the receiver, use the proper antenna for your location.

The factors determining the antenna requirements for your location include the following :

1. How strong are the signals in your neighborhood ?
2. Are all the fm stations in the same direction, or are they scattered ?
3. Is multipath reception a problem ?




Directional outdoor antenna
Increased sensitivity to front signals
Dipole with reflector
Reduced sensitivity to rear signals

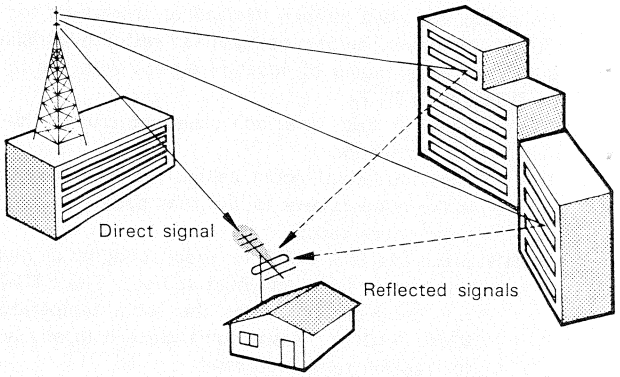


In a strong signal (metropolitan) area : A ribbon-type fm dipole (supplied) or the familiar "rabbit ears" antenna is easy to install and is usually suitable for good fm reception. The rabbit ear antenna is the more preferable of the two since it can easily be adjusted for best signal pickup. If there are many high structures nearby, and "FM ghosts" (multipath reception) cause the problems described later, use a highly-directional outdoor rotatable antenna. The STR-7055 can handle the resulting high input signal level without distortion due to its outstanding signal-handling capability.

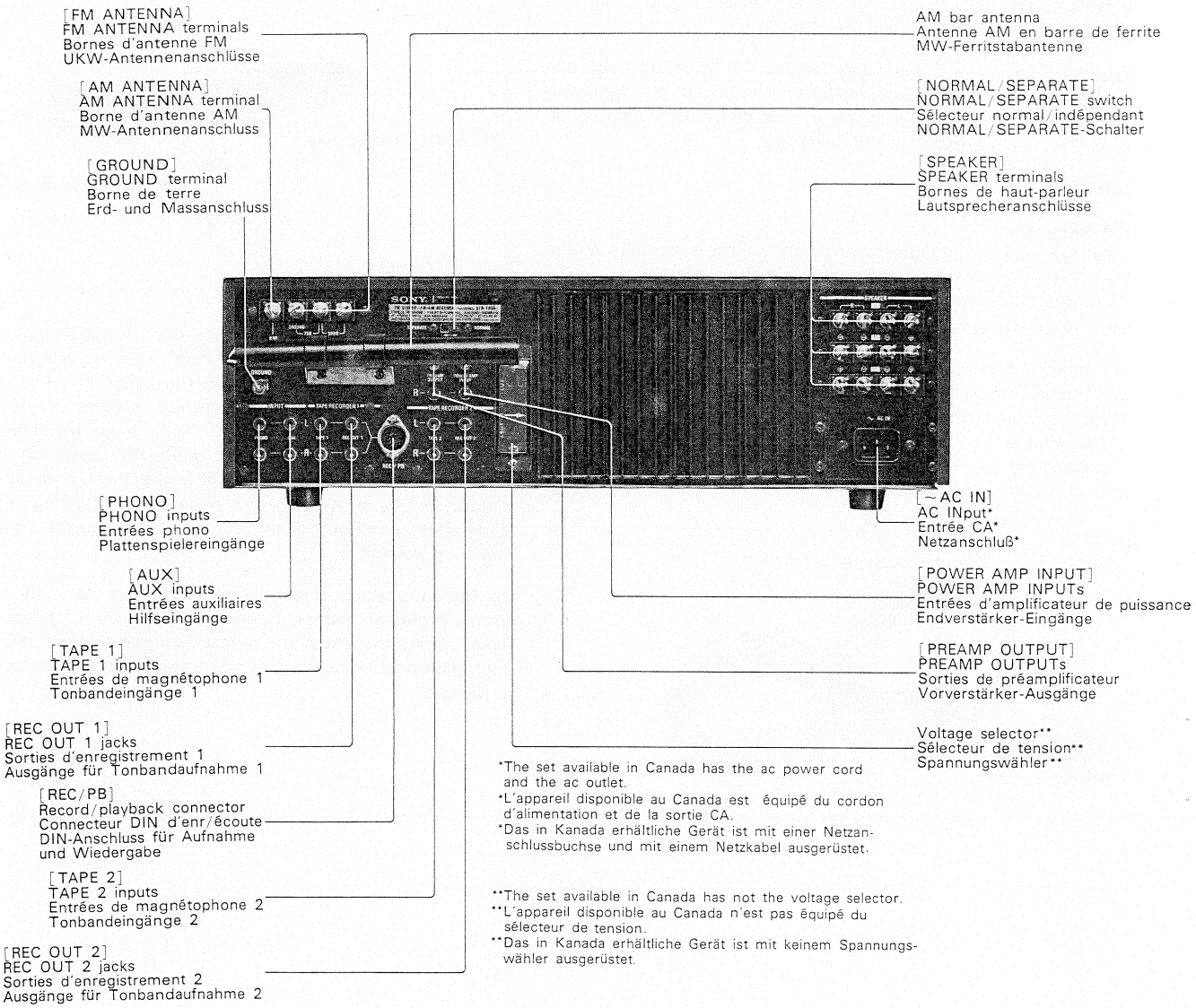
In the surburbs : If you want to receive not only the local stations that an indoor antenna pulls in, but to reach out into areas where there may be programs more to your taste, use a high-gain directional outdoor fm antenna properly installed with a rotator.

Multipath Reception : The most important factor affecting signal quality is multipath reception. Multipath is caused by signal reflections that bounce off hills or structures and reach the receiving antenna much later in time. With fm—especially in stereo—multipath can cause severe distortion and complete loss of channel separation. The effects of a multipath condion appear as high-frequency noise and distortion, particularly noticeable in receivers with extended response.

Multipath reception can be avoided to a great extent by using shielded twin lead or coaxial cable, and a good directional antenna that is correctly oriented.

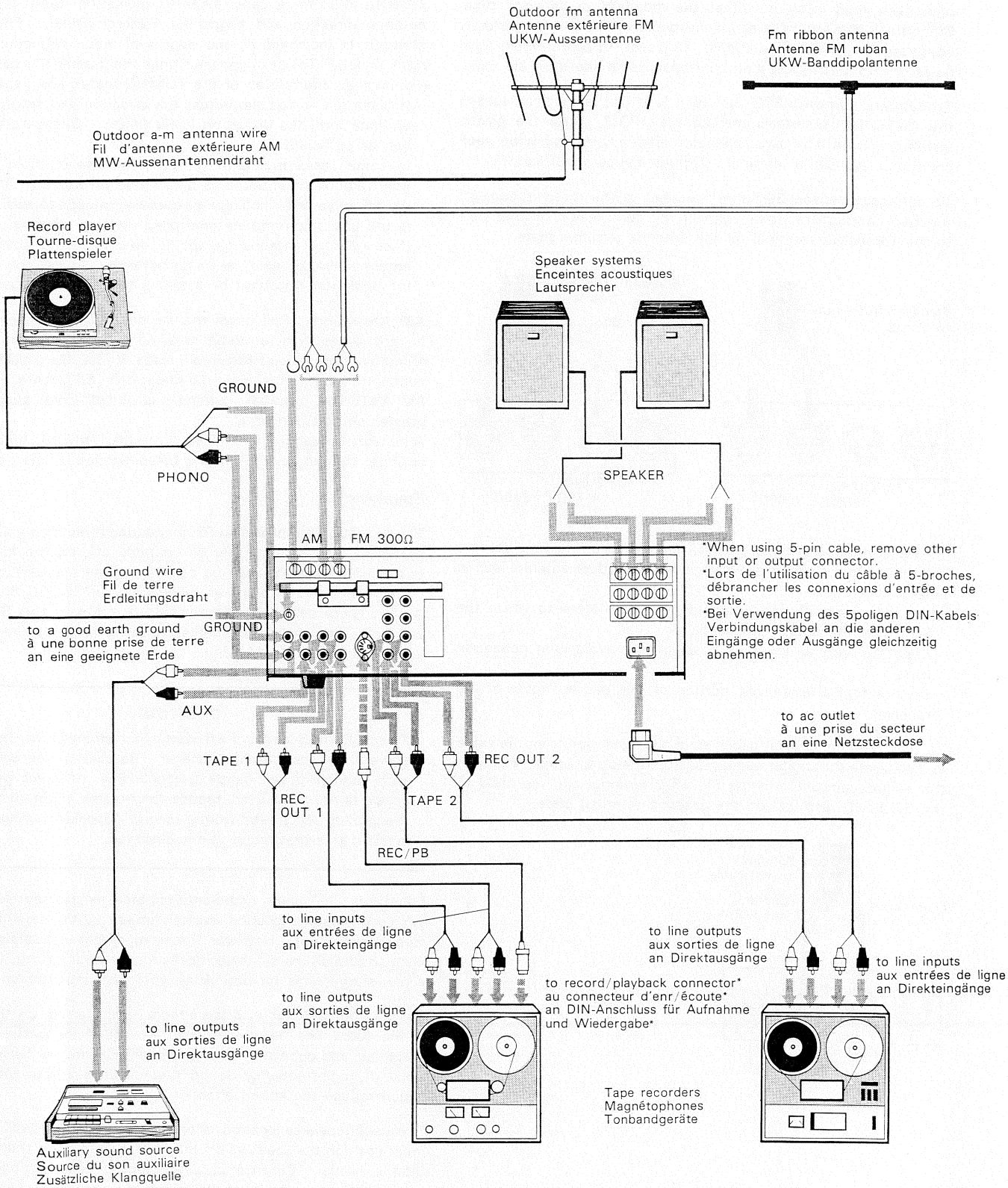


An antenna with high frontal sensitivity rejects the reflected signals.



*The set available in Canada has the ac power cord and the ac outlet.
*L'appareil disponible au Canada est équipé du cordon d'alimentation et de la sortie CA.
*Das in Kanada erhältliche Gerät ist mit einer Netzanschlussbuchse und mit einem Netzkabel ausgerüstet.

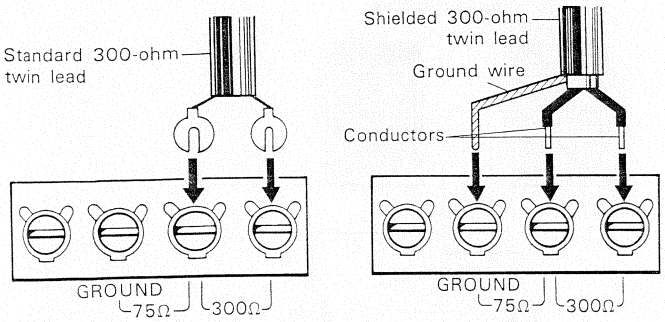
**The set available in Canada has not the voltage selector.
**L'appareil disponible au Canada n'est pas équipé du sélecteur de tension.
**Das in Kanada erhältliche Gerät ist mit keinem Spannungswähler ausgerüstet.


Outdoor fm antenna
Antenne extérieure FM
UKW-Aussenantenne
Fm ribbon antenna
Antenne FM ruban
UKW-Banddipolantenne
Outdoor a-m antenna wire
Fil d'antenne extérieure AM
MW-Aussenantennendraht
Record player
Tourne-disque
Plattenspieler
Speaker systems
Enceintes acoustiques
Lautsprecher
GROUND
PHONO
SPEAKER
AM
FM 300Ω
Ground wire
Fil de terre
Erdleitungsdraht
to a good earth ground
à une bonne prise de terre
an eine geeignete Erde
GROUND
AUX
*When using 5-pin cable, remove other input or output connector.
*Lors de l'utilisation du câble à 5-broches, débrancher les connexions d'entrée et de sortie.
*Bei Verwendung des 5poligen DIN-Kabels Verbindungskabel an die anderen Eingänge oder Ausgänge gleichzeitig abnehmen.
to ac outlet
à une prise du secteur
an eine Netzsteckdose
TAPE 1
REC OUT 2
REC OUT 1
TAPE 2
REC/PB
to line inputs
aux entrées de ligne
an Direkteingänge
to line outputs
aux sorties de ligne
an Direktausgänge
to record/playback connector*
au connecteur d'enr/écoute*
an DIN-Anschluss für Aufnahme und Wiedergabe*
to line outputs
aux sorties de ligne
an Direktausgänge
to line inputs
aux entrées de ligne
an Direkteingänge
to line outputs
aux sorties de ligne
an Direktausgänge
Tape recorders
Magnétophones
Tonbandgeräte
Auxiliary sound source
Source du son auxiliaire
Zusätzliche Klangquelle

FM Antenna Connection : The receiver accepts either 300-ohm transmission line (twin lead) or 75-ohm coaxial cable. The 300-ohm twin lead may be either the standard or shielded type. Standard 300-ohm twin lead is inexpensive and will be perfectly adequate for most installations. However, in cases where local noise or multipath pickup on the transmission line must be used.

To connect standard 300-ohm twin lead to the receiver, loosen the ANTENNA terminals marked FM 300 Ω. Strip the plastic insulation from the two-conductor lead-in wire and wrap each conductor around a terminal. Tighten the terminal screws.

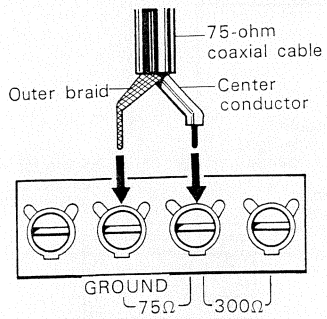
To connect shielded 300-ohm twin lead to the receiver, connect the two conductors, then connect the twin lead's ground wire to the GROUND terminal on the antenna terminal plate.



To obtain minimum signal leakage and pickup on the line, observe the following precautions, when using an outdoor antenna lead-in wire.

- Use commercially-available stand-off insulators to route the lead over the roof, outer wall, etc.
- Keep the lead as short as possible and avoid long horizontal runs.
- Do not fold the unused portion of the lead at inputs of the receiver.

To use 75-ohm coaxial cable, strip the insulation from the cable and separate the center conductor from the outer braid. Connect the center conductor to the FM 75 Ω terminal and the braid to the GROUND terminal on the antenna terminal plate.



Antenna Orientation : Fm signal strength is indicated on the TUNING meter. First, tune in the desired station by turning the TUNING knob for a center-channel indication, then adjust the antenna direction and height for clearest sound. The signal strength is indicated by the degree of meter deflection to the right or left. The stronger the signal, the greater the deflection. (For further information of the TUNING meter, see page 12.)

- If distortion is audible, adjust the direction and height of the antenna until the distortion is eliminated. Often, a slight turn will be sufficient.
- In some cases multipath reception on two or more stations may require the antenna to be pointed in different directions. An effective and relatively inexpensive solution to this problem is the use of a remotely controlled rotating antenna.
- If an outdoor antenna cannot be erected, use a good indoor antenna ("rabbit ears" are satisfactory). Adjust the antenna for minimum distortion by listening to the sound quality.

AM Reception : Pull down the bar antenna on the rear panel. In most areas, this ferrite-bar antenna will provide optimum a-m reception. In difficult reception areas it may be necessary to connect a length of wire, 5 – 15 meter (20 – 50 feet) long, to the AM ANTENNA terminal. Extend this out of doors, keeping the greater portion horizontal.
A-m signal strength is indicated on the TUNING meter ; the stronger the signal, the greater the deflection to the right.

Speakers

The STS-7055 has provision for connecting three separate speaker systems. These can either be operated one system at a time, or one of the systems can be operated simultaneously with one of the other two systems as follows : A or B or C or A+B or A+C. These systems are turned on or off with the SPEAKER selector. The speakers connected to these terminals should have an impedance of 4 – 16 ohms.

CAUTION

The STR-7055 delivers 68 watts (per channel) of dynamic power into each 8-ohm speaker. Be sure to use speakers with suitable power handling capabilities. If lower wattage speakers are to be used, reduce the volume when removing the phonograph pickup from a record. Speaker damage may result if this precaution is not observed.

Location : In many home-entertainment stereo systems, the choice of speaker location is often limited by the existing furniture arrangement. However, if rearrangement is possible, or you wish to furnish the area specifically for stereo listening, here are a few suggestions for optimizing your listening pleasure.

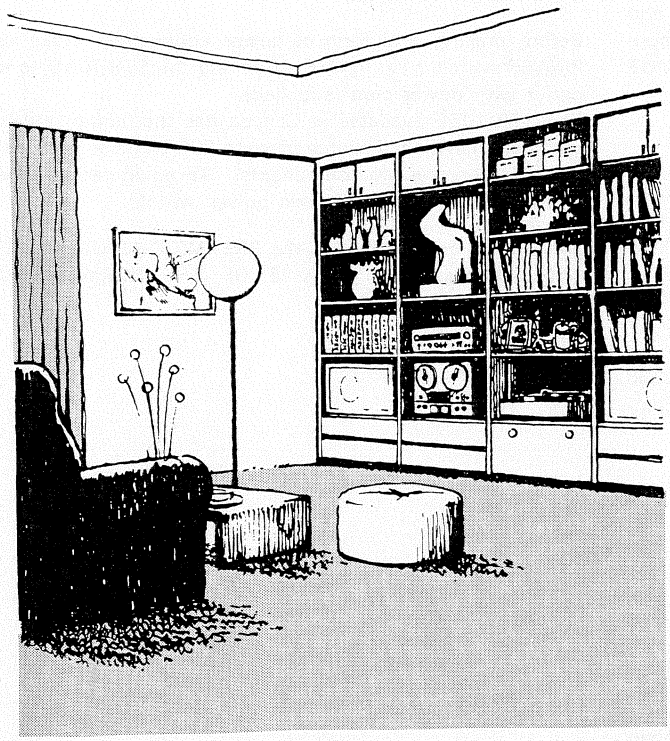
Set up your speaker in a large room having a rug on the floor. If the room has heavy draperies, so much the better. Rugs, draperies, and upholstered furniture minimize the multiple reflections of high-frequency sound that occur in a bare room, and which reduce the stereo effect.

The usual speaker location is on the floor against a wall. If you must position the speakers off the floor, do not place them higher than eye-level. Because of psychological conditioning, sound coming from the vicinity of the ceiling gives an unnatural feeling.

Corner locations, however, are ideal for emphasizing the bass tones.

Position the left and right speakers in similar acoustic environments. If you set up the left and right speakers in an unbalanced acoustic condition, i.e. positioning the left speaker in a corner and the right speaker in the middle of a wall, you will produce unbalanced bass—the left channel sound will be emphasized in this case.

The distance between right- and left-channel speakers is important for stereo effect. Closely-spaced speakers produce minimum stereo effect. Widely-separated speakers produce maximum stereo effect, although too much separation produces an unnatural "hole-in-the-middle" effect. Proper distance between speakers is directly related to the distance from the speakers to the listening areas. In most cases, fine results are obtained if the speakers are separated by an amount slightly more than the distance from the listening area to each speaker.
Experiment with different speaker and listening locations until you find the setup that pleases you most.



Cable Types: The type of speaker cord is not critical in most home stereo systems. Ordinary dual-conductor lamp cord is often used for this purpose. Common 18-gauge lamp cord is fine for short runs. However, 14- to 16-gauge wire may be needed for long runs to low impedance speakers to prevent excessive power losses in the wiring. If you use lamp cord or any other stranded wire, make sure that none of the strands separates and shorts across the speaker or receiver terminals.
Connections: Connect your speaker systems to the SPEAKER terminals: A, B and C. Connect the right and left speakers to the R and L SPEAKER terminals respectively, ⊕ to ⊕ and ⊖ to ⊖. For simplifying the ⊕ and ⊖ terminal connection (speaker phasing), speaker cord has different colored leads. Connect the ⊕ terminals of a speaker and the receiver with one color lead, and connect the ⊖ terminals with the remaining lead. When you use ordinary dual-conductor lamp cord, look for the colored thread molded in with one lead.

CAUTION

Do not connect the speaker terminals of one channel together with those of the other channel.

Notes on Input Connections

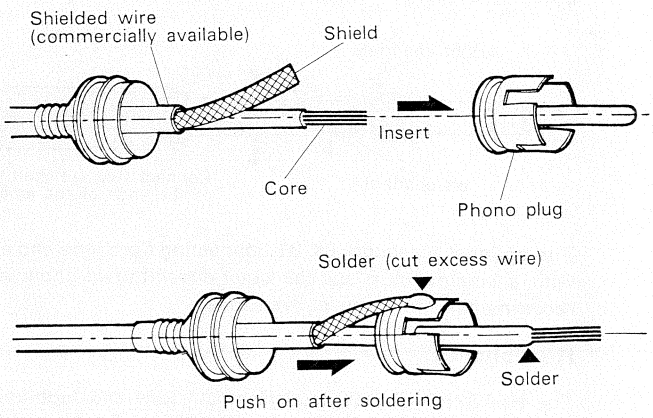
To assure correct matching at the input and output terminals of your sound system, refer to the table of "SPECIFICATIONS" of the STR-7055 on page 17, and to the specifications given in the instruction manuals provided with the components you wish to connect to the STR-7055. Generally the output level of a signal source (phono cartridge, tape recorder, etc.) should be equal to or slightly greater than the sensitivity of the corresponding input. Also, the output impedance of a signal source should be considerably lower (several times or more) than the impedance of the corresponding input. For example, a tape recorder having an output level and impedance of 250 millivolts and 10 k ohms respectively, can be connected to the TAPE input of this receiver.

For input connections, use low-capacitance shielded cable, otherwise, hum may occur. Keep the cables as short as possible. In excessively-long horizontal runs (over 6 feet), the high-frequency response may be reduced.

Be sure the cable connectors are fully inserted into the jacks. A loose connection may cause hum and noise.

If reconnection is required, turn the VOLUME control counterclockwise.

The method of connecting the phono plugs supplied is shown in the illustrations below.



Record Players

A record player equipped with a magnetic (moving magnet or moving coil) cartridge can be connected to the PHONO inputs. For a very-low output cartridge (less than 2 millivolts output), use a step-up transformer or a head-amplifier unit.

Connect the ground wires* of the tonearm and turntable to the GROUND terminal. If these connections are poor or incorrect, hum may occur.

* Some players have one ground wire because the turntable and tonearm are connected internally.

Tape Recorders

Two pairs of tape recorder connectors, TAPE 1 · 2 inputs and REC OUT 1 · 2 jacks, are provided. They serve for tape duplication and simultaneously recordings. For tape playback, connect the line outputs (or monitor outputs) of a tape recorder to the TAPE inputs. For tape recording, connect the line inputs of a tape recorder to the REC OUT jacks.

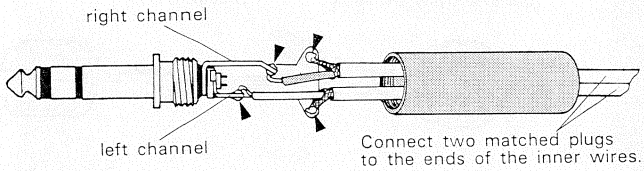
If your tape recorder has the same type DIN 5-pin connector (indicated REC/PB) as that on the STR-7055, the record and playback connections can be made with a single REC/PB connector cable. In this case, the TAPE 1 inputs and the REC OUT 1 jacks cannot be used.

AUX Input Connections

The AUX jacks have been provided for connecting various input sources such as a tape recorder, additional tuner, etc. The rear panel AUX jacks are for connecting permanently used sources. The front panel AUX jack is convenient for source temporarily used. When the front panel AUX jacks is used, the rear panel AUX inputs are cut off.

- For connection through the front panel AUX jack, make the connecting cord by using the supplied binaural plug, a shielded cable and plugs matched to your equipment (both are commercially-available).

Solder the parts marked (►) securely as illustrated.



The optional accessory RK-81 Connecting Cord (one end equipped with a binaural plug and the other end with two phono plugs) is recommended for your convenience.

Headphones

The HEADPHONE jack accepts most* low- and high-impedance headphones equipped with a standard binaural phone plug. For private listening, make sure that the SPEAKER selector is set to OFF.

* Some electrostatic headphones are designed to be driven by the speaker outqut and cannot be plugged into this jack.

SQ Connection

Four-channel stereo reproduction from SQ, other type matrices and discrete four-channel programs is possible with the STR-7055 by connecting a matrix decoder (such as the Sony SQ Decoder), additional amplifier and speakers.

Connect the TAPE inputs of the STR-7055 to the OUTPUT jacks of the decoder, and the REC OUT jacks of the STR-7055 to the INPUT jacks of the decoder. When this is done, a tape recorder (2 or 4 channel) uses the tape connectors furnished on the decoder.

Ground Connection

Connect the ground wire from the record player to the GROUND* terminal of the STR-7055. If hum occurs, connect the GROUND terminal to a convenient earth ground. A direct earth ground is recommended for lightning protection when an external antenna is used.

* You can simultaneously connect a shielded twin lead ground wire of the antenna to this terminal.

Power Connections

Before making any form of power connection, make sure the POWER switch is set to OFF. Connect the STR-7055 to an wall outlet with power cord (supplied).

The STR-7055 available in Canada has the female outlet which provides unswitched source of up to 300 watts ac power for any of your other system components. An equipment plugged into this outlet must have its own power switch.

For making connections to the PREAMP OUTPUTs and POWER AMP INPUTs, refer to "USE OF THE NORMAL/SEPARATE SWITCH" on page 13.

OPERATING INSTRUCTIONS

LOCATION AND FUNCTION OF CONTROLS

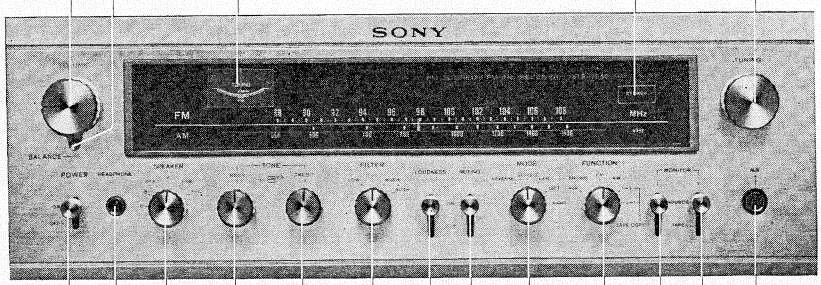
Before attempting to operate your STR-7055, take a few minutes to learn the location and function of the controls mentioned in the operating instructions.

BALANCE control
Regulates the relative sound level of the right and left channe ls for optimum stereo effect. To decrease the right-channel sound, turn it to the left, to decrease the left-channel sound to the right.

SPEAKER selector
Selects the speakers connected to SPEAKER terminals A, B or C. To simultaneously turn on both A and B, or A and C systems, set the selector to A+B, or A+C. In this case, make sure that speaker systems are connected to **both** sets of SPEAKER terminals **selected**, otherwise, no sound will be heard. When using headphones, move the selector to OFF.

BASS and TREBLE TONE controls
Control the prominence of BASS or TREBLE notes. Tnrn clockwise to increase bass (or treble) notes, counterclockwise to decrease response. Adjust these controls to your preference. The friction clutch knobs permit controlling the left and right channels simultaneously or independently. The outer knobs control the right channels, and the inner knobs control the left channels.

FILTER selector
LOW .....sharply reduces turntable rumble and low-frequency noises by decreasing the frequency response by 12 dB/ octave below 50 Hz.
OFF.....The LOW and HIGH FILTERs are turned off.
HIGH .....sharply reduces high-frequency noises associated with poorly recorded tapes or old worn discs by decreasing the frequency response by 12 dB/octave above 9 kHz.
BOTH.....Both LOW and HIGH FILTERs are turned on.
NOTE: When using this selector, desired bass (or high) frequency sound will be reduced as well as the unwanted noise, therefore, use these positions only with troublesome programs.



[TUNING]
TUNING meter
Indicateur d'accord
Abstimmungsanzeiger

[BALANCE]
BALANCE control
Réglage de balance
Balanceregler

[VOLUME]
VOLUME control
Réglage de volume
Lautstärkeregler

[STEREO]
STEREO lamp
Voyant stéréo
Stereoanzeigelampe

[TUNING]
TUNING knob
Bouton d'accord
Abstimmknopf

[POWER]
POWER switch
Interrupteur d'alimentation
Netzschalter

[HEADPHONE]
HEADPHONE jack
Prise de casque
Kopfhöreranschluss

[SPEAKER]
SPEAKER selector
Sélecteur de haut-parleur
Lautsprecherwähler

[BASS TONE]
BASS TONE controls
Réglages de tonalité grave
Bassregler

[TREBLE TONE]
TREBLE TONE controls
Réglages de tonalité aiguë
Höhenregler

[FILTER]
FILTER selector
Sélecteur de filtre
Filter-Wähler

[AUX]
AUX jack
Prise auxiliaire
Hilfseingang

[MONITOR]
MONITOR switches
Commutateurs de moniteur
Mithörwähler

[FUNCTION]
FUNCTION selector
Sélecteur de fonction
Eingangswähler

[MODE]
MODE selector
Sélecteur de mode
Betriebsartenwähler

[MUTING]
MUTING switch
Interrupteur d'assourdissement
Stummabstimmungsschalter

[LOUDNESS]
LOUDNESS switch
Interrupteur d'accentuation
Loudness-Schalter

LOUDNESS switch

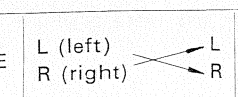
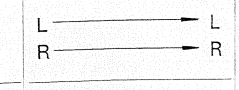
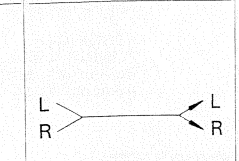
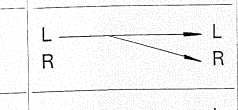
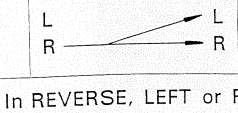
To compensate for the change in the tonal response of human hearing at low sound levels, set this switch to ON. Your ear is most sensitive to those frequencies between 1500 Hz and 6000 Hz, so it is not as responsive to frequencies above or below that range. The LOUDNESS switch will boost the low and high frequency response to provide an apparently flat output. At a higher listening level, little or no compensation provided.

MUTING switch

Usually set this switch to ON to eliminate fm interstation noise while tuning from station to station. However, very weak stations may also be muted along with the noise. Therefore, weak stations must be tuned with the MUTING switch set to OFF. In this event, keep the volume down when detuning to avoid speaker damage.

MODE selector

Determines the mode of the program reproduced at the outputs.

REVERSE		To reverse right and left stereo sound.
STEREO		Normal stereo sound
L+R		• For recording with a monaural tape recorder • For balancing right- and left-channel sound levels • For listening to any input program monophonically
LEFT		To amplify a monaural input source
RIGHT		

NOTE : In REVERSE, LEFT or RIGHT, the REC OUT jacks and REC/PB connector provide normal stereo signals.

FUNCTION selector

Selects any one of the program sources ; AUX, PHONO, FM, AM and TAPE COPY 1→2, 2→1.
The TAPE COPY positions are for tape duplication.

FUNCTION selector	Tape recorder 1 — Tape recorder 2
TAPE COPY 1→2	Playback ⟶ Recording
TAPE COPY 2→1	Recording ⟵ Playback

MONITOR switches

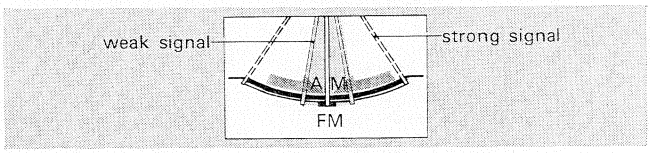
MONITOR 1 TAPE.....Taped programs connected to either the TAPE 1 inputs or to the record/playback connector can be played back. During tape 1 playback, the MONITOR 2 switch has no effect.

MONITOR 2 TAPE.....When playing back taped programs connected to the TAPE 2 inputs, move the MONITOR 1 switch to SOURCE and move the MONITOR 2 switch to TAPE.

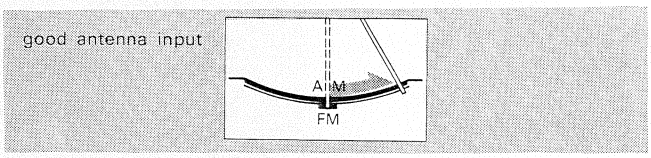
SOURCE.....For all other program sources, move both MONITOR switches 1 and 2 to this position and select the desired program with the FUNCTION selector.

TUNING meter

For fm .....While receiving fm programs, this meter acts as a zero-center indicator and pin-points the channel center of the selected station. Correct tuning is indicated by center-point reading. Relative strength on selected signal is shown by the amount of meter deflection. The stronger the signal, the greater the pointer deflection.



For a-m .....While receiving a-m programs, the meter swings toward the right. Maximum pointer deflection to the right indicates the best tuning. The relative strength of the received signal is shown by the amount of meter deflection.



STEREO lamp

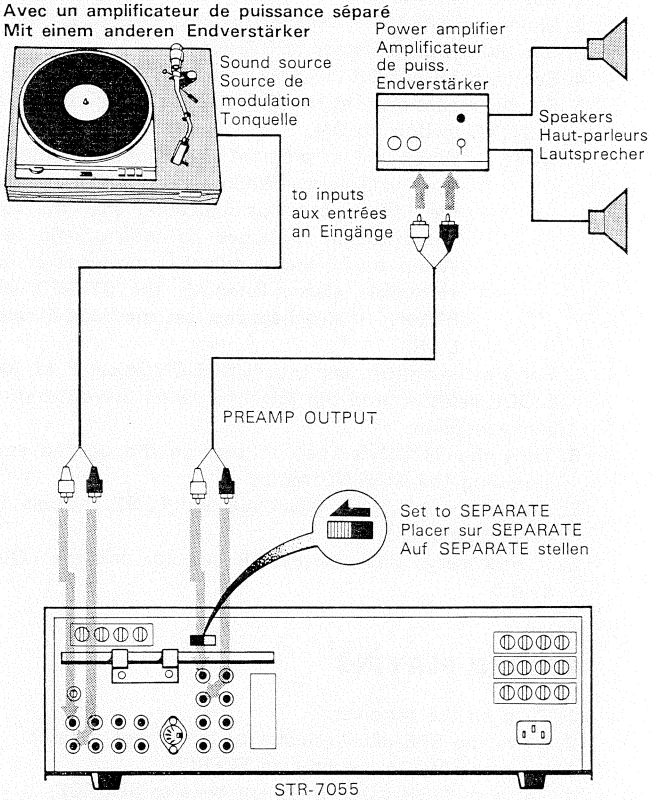
The red STEREO lamp will light when an fm stereo program is tuned in and the MODE selector is set to STEREO. Also, the lamp will usually flicker on excessive noise.

USE OF THE NORMAL/SEPARATE SWITCH

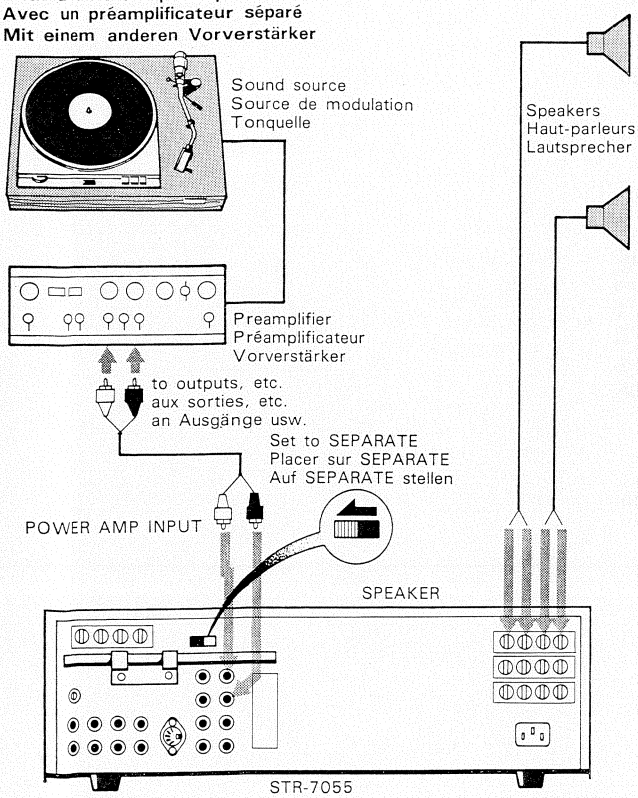
By setting the NORMAL/SEPARATE switch to SEPARATE, you can use the preamplifier and power amplifier sections independently of each other as shown in the illustrations. The preamplifier output is available at the PREAMP OUTPUTs, allowing you to use the preamplifier section to drive a different power amplifier Input to the power amplifier section is made to the POWER AMP INPUTs, allowing you to use a different preamplifier to drive the STR-7055's power amplifier.

When the NORMAL/SEPARATE switch is set to NORMAL, the output of the preamplifier section is connected to the power amplifier. Thus, the preamplifier output appearing at POWER AMP INPUTs can be used to drive an additional power amplifier.

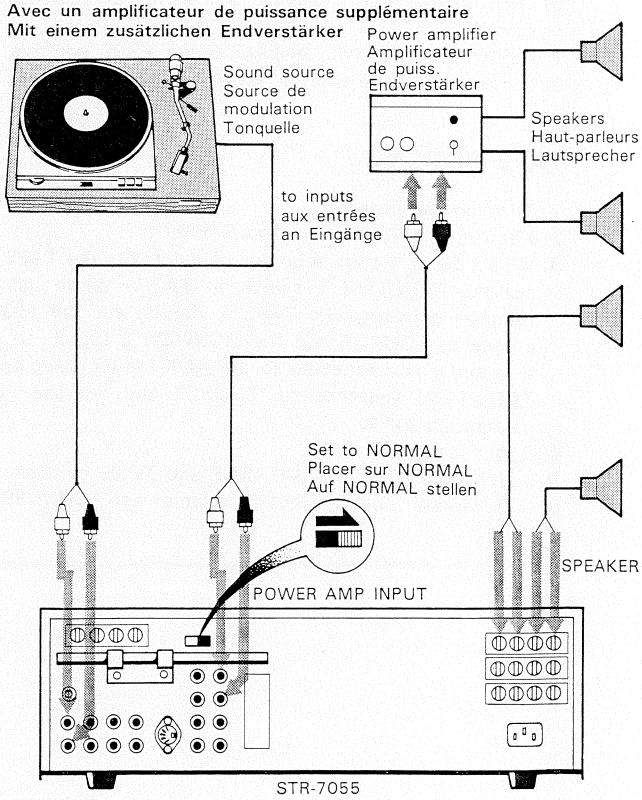
With a different power amplifier
Avec un amplificateur de puissance séparé
Mit einem anderen Endverstärker



With a different preamplifier
Avec un préamplificateur séparé
Mit einem anderen Vorverstärker



With an additional power amplifier
Avec un amplificateur de puissance supplémentaire
Mit einem zusätzlichen Endverstärker



FM OR AM RECEPTION

1. Turn on the receiver.
2. Move the SPEAKER selector to the proper position.
3. Set the MODE selector to STEREO.
4. Set both MONITOR (1 · 2) switches to SOURCE.
5. For fm reception, set the FUNCTION selector to FM and the MUTING switch to ON.
   NOTE: When an fm program is stereophonic, the STEREO lamp will light. When signals shift to monophonic, the lamp goes out indicating that the tuner has automatically switched to monophonic reception. When an fm stereo signal is too weak or noisy for enjoyable stereo listening, the STEREO lamp will flicker. If this happens, set the MODE selector to L+R.

   For a-m reception, set the FUNCTION selector to AM. The MODE selector and the MUTING switch have no effect upon a-m reception.
6. Turn the TUNING knob to tune in the desired station by watching the TUNING meter.
7. Adjust the VOLUME, BALANCE and TONE controls for your listening preference.
8. If necessary, use the FILTER selector and the LOUDNESS switch.

RECORD PLAYING

1. Turn on the receiver.
2. Move the SPEAKER selector to the proper position.
3. Keep the MODE selector on STEREO.
4. Set both MONITOR (1 · 2) switches to SOURCE.
5. Move the FUNCTION selector to PHONO.
6. Turn on the record player, then lower the cartridge on the record.
7. Adjust the VOLUME, BALANCE and TONE controls.
8. If necessary, use the FILTER selector and LOUDNESS switch.

TAPE PLAYING

1. Turn on the receiver.
2. Keep the MODE selector on STEREO.
3. When using a tape recorder connected to the TAPE 1 inputs, set the MONITOR 1 switch to TAPE. When using a tape recorder connected to TAPE 2 inputs, set the MONITOR 1 switch to SOURCE and the MONITOR 2 switch to TAPE. If a recorder is connected to the AUX inputs, keep both MONITOR (1 · 2) switches on SOURCE and set the FUNCTION selector to AUX.
4. Begin playback.
5. Adjust the VOLUME, BALANCE and TONE controls.
6. If necessary, use the FILTER selector and LOUDNESS switch.

RECORDING THROUGH THE STR-7055

1. Turn on the receiver.
2. Keep both MONITOR (1 · 2) switches on SOURCE, and MODE selector on STEREO.
3. Move the FUNCTION selector to the desired program; FM, AM, PHONO or AUX.
4. Begin recording. Adjust the recording level at the recorder.

Notes on Recording

- The VOLUME, BALANCE, TONE controls, LOUDNESS switch, and the FILTER selector do not affect the recording results.
- If the connected tape recorder is a monaural type, and the program is stereophonic, move the MODE selector to L+R.
- While simultaneously recording on two type recorders, if there is bias current leak on the recorder connected, the recording may be marred by beat noise. If this happens, make just one recording and duplicate it according to "TAPE DUPLICATION", page 15.

Tape/source Monitoring

When using a three-head tape recorder, instantaneous tape/source monitoring is possible by moving the MONITOR switch (es) alternately to TAPE and SOURCE. In this event, keep the tape recorder monitor switch on TAPE. To monitor the input signal, move both MONITOR switches to SOURCE. To monitor the recorded signal, set the MONITOR switches as follows; with the recorder connected to the TAPE RECORDER 1 jacks, move the MONITOR 1 switch to TAPE; with the recorder connected to the TAPE RECORDER 2 jacks, move the 1 switch to SOURCE and the 2 switch to TAPE.

If the record/playback connector is used, this tape/source monitoring is not advisable.

TAPE DUPLICATION

Without changing the tape recorder connections, you can copy a tape program through the STR-7055.

- Tape recorder 1 means the tape recorder connected to the TAPE 1 inputs and the REC OUT 1 jacks, and tape recorder 2 means the tape recorder connected to the TAPE 2 inputs and the REC OUT 2 jacks.

Duplication on tape recorder 2

1. Move the FUNCTION selector to TAPE COPY 1→2.
2. Set the tape recorder 1 controls for playback and the tape recorder 2 controls for recording. Duplication will begin.

To monitor the original signal (tape 1 playback), move the MONITOR 1 switch to TAPE.

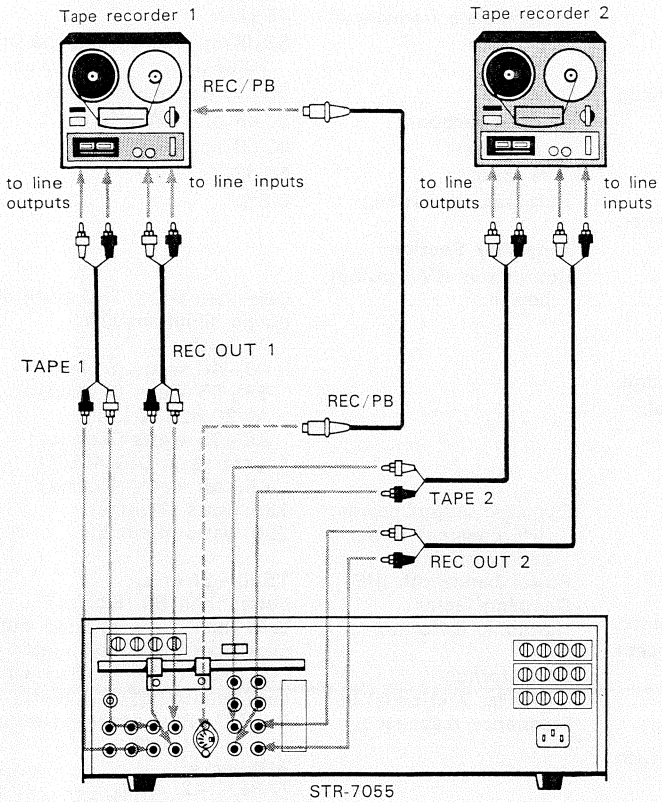
When the recording tape recorder (tape recorder 2) has three heads, the recorded signal can be monitored by moving the MONITOR 1 switch to SOURCE and the MONITOR 2 switch to TAPE and keeping the tape recorder 2 monitor switch on TAPE.

Duplication on tape recorder 1

1. Move the FUNCTION selector to TAPE COPY 2→1.
2. Set the tape recorder 2 controls for playback and tape recorder 1 controls for recording. Duplication will begin.

To monitor the original signal, move the MONITOR 1 switch to SOURCE and 2 switch to TAPE.

To monitor the recorded signal, when tape recorder 1 has three heads, move MONITOR 1 switch to TAPE and keep the recorder 1 monitor switch on TAPE.



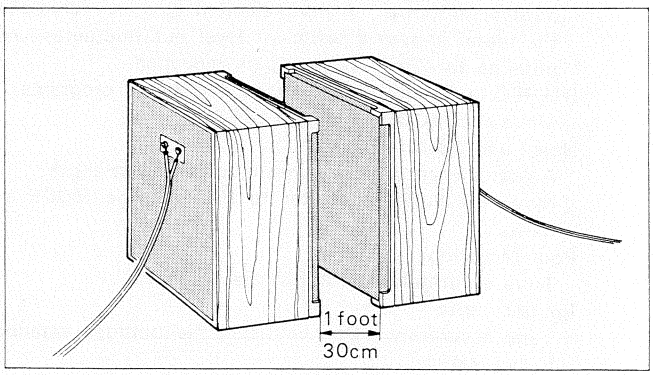
BALANCING THE STEREO SYSTEM

As soon as you are familiar with the operation of your STR-7055 make the following checks and adjustments on your stereo system to secure the best possible stereo listening.

Speaker Phasing Check

If the sound seems to lack bass tones and the position of the instruments is obscure, the speakers may be improperly phased. Check the phasing as follows:

Move the right and left speakers so that they are about 30 cm (one foot) apart and facing each other. Move the MODE selector to L+R and move the BALANCE control to its center. Listen to a recorded passage containing prominent bass tones. Then reverse the connection to one of the speakers and listen to the same bass passage again. If it now sounds like there is less bass, the speakers were correctly phased and the original connection should be restored. However, if the bass appears to have increased, the speakers were originally phased incorrectly and the new connection should be used.



Stereo Balance

The feeling of direction and depth that stereophonic sound produces is greatly reduced if the levels of both channels are not balanced. Move the MODE selector to L+R and adjust the BALANCE control for equal output from right and left speakers. Balance variations with different program sources are due to differences in the recording levels. Stereo balance is also influenced by the acoustics of the room. Carpets, furniture placement, and room size and shape have a definite effect upon sound quality and balance.

CARE OF YOUR STR-7055

CLEANING

Finger prints, food and beverage stains, dust and dirt, etc. can mar the beauty of your STR-7055. The panel, knobs or dial glass can be cleaned with a soft dampened cloth or polishing cloth (supplied). Do not use any type of scouring powder, abrasive pad, or solvent.

TROUBLE CHECKS

Should any difficulty arise with your STR-7055, make the following simple checks to determine if the trouble is really in the receiver or external to it. Quite often hi-fi equipment fails to operate properly because of incorrect system connections. If the trouble persistes after you have made these checks, consult your Sony dealer for further instructions.

Off-the-air Programs:

STEREO lamp flickers.
- If the TUNING meter indicates a weak signal input, use an outdoor antenna. A multi-element type is recommended. If the meter shows a sufficient level but fluctuates, adjust the antenna to eliminate multipath reception.

STEREO lamp not lit when receiving stereo programs.
- Move the MODE switch to STEREO.

Noisy and distorted reception
- Adjust the antenna for maximum signal strength.
- Move the FILTER selector to HIGH or the MODE switch to L+R.

Poor reception
- Tune accurately and adjust the antenna.

Ignition noise
- Tune accurately. Do not install the outdoor antenna facing heavy traffic.

Other Program Sources:

No audio and the dial lamp is not lit.
- Check the ac power cord and wall outlet for presence of power.

No audio but dial lamp lit.
- Check the speaker connections.
- Check the MONITOR 1 · 2 switches settings.
- Check the FUNCTION selector setting.
- Turn the VOLUME control clockwise.

No audio from one channel, or unbalanced left and right volume.
- Check the speaker and input connections of dead channel.
- Adjust the BALANCE control.

Lack of bass tone or obscure instrument position
- Check speaker phasing.

Reversed left and right sounds
- Check speaker location and connection.

Severe hum or noise
- Use shielded connecting cables.
- Keep connecting cables away from transformers or motors, and at least 3 meters (10 feet) from TV sets and fluorescent lights.

Rustling sound
- Make secure connections.
- Wipe the plugs and jacks with a cloth lightly dampened with methanol.

TECHNICAL DATA

SPECIFICATIONS

Fm Tuner Section

Tuning range:	87.5 – 108 MHz
Antenna terminals:	300 ohms balanced 75 ohms unbalanced
Intermediate frequency:	10.7 MHz
Sensitivity:	2.0 μV, IHF 1.6 μV, S/N=26 dB (1 kHz, 40 kHz deviation)
Image rejection:	70 dB
I-f rejection:	100 dB
Spurious rejection:	90 dB
A-m suppression:	56 dB
Capture ratio:	1.0 dB
Selectivity:	70 dB, IHF
S/N ratio:	70 dB
Frequency response:	20 Hz – 15 kHz ±1 dB
Harmonic distortion:	Mono 0.2% at 400 Hz, 100% modulation Stereo 0.5% at 400 Hz, 100% modulation
Stereo separation:	Better than 38 dB at 400 Hz
19 kHz, 38 kHz suppression:	40 dB

A-m Tuner Section

Tuning range:	530 kHz – 1605 kHz
Antenna:	Built-in bar antenna and external antenna terminal
Intermediate frequency:	455 kHz
Sensitivity:	53 dB/m, built-in antenna at 1000 kHz 30 μV, external antenna
Image rejection:	50 dB at 1000 kHz
I-f rejection:	40 dB at 1000 kHz
S/N ratio:	50 dB
Harmonic distortion:	0.8%

Amplifier Section

Continuous RMS output power:	Less than 0.2% THD, both channels driven simultaneously At 1 kHz 45+45 watts (8 ohms) 55+55 watts (4 ohms) At 20 Hz – 20 kHz 35+35 watts (8 ohms) According to DIN 45500 45+45 watts (8 ohms)
Dynamic output power: (IHF constant power supply method)	136 watts (8 ohms) 200 watts (4 ohms)
Power bandwidth IHF:	15 Hz – 35 kHz
Damping factor:	Better than 50 (8 ohms)
Harmonic distortion:	Less than 0.2% at rated output Less than 0.1% at 1 watt
IM distortion: (60 Hz : 7 kHz=4 : 1)	Less than 0.2% at rated output Less than 0.1% at 1 watt
Frequency response:	PHONO RIAA equalization curve ±1 dB AUX jacks, TAPE 1 · 2, REC/PB (input): 10 Hz – 70 kHz $^{+0}_{-3}$ dB POWER AMP INPUT: 10 Hz – 100 kHz $^{+0}_{-1}$ dB at 1 watt

S/N ratio:

	S/N	Weighting network	Input level	
PHONO	70 dB	B	PHONO	3 mV
AUX jacks TAPE 1 • 2 REC/PB (input)	90 dB	A	AUX jacks TAPE 1 • 2 REC/PB (input)	250 mV
POWER AMP INPUT	100 dB	A	POVER AMP INPUT	1 V

Input sensitivity and impedance:

	Maximum sensitivity	Impedance
PHONO	2 mV	47 k ohms
AUX jacks TAPE 1 • 2 REC/PB (input)	150 mV	50 k ohms
POWER AMP INPUT	1 V	50 k ohms

Measured with continuous RMS output provided into 8-ohm loads (both channels driven simultaneously) at 1 kHz.

Output level and impedance:

	Level	Impedance	Input level	
REC OUT 1•2	250 mV	10 k ohms	PHONO	3 mV
REC/PB (output)	30 mV	82 k ohms	AUX jacks TAPE 1•2 REC/PB (input)	250 mV
PREAMP OUTPUT	1 V	4.7 k ohms		
HEADPHONE	Accepts low and high impedance headphones.			
SPEAKER	Accepts 4 – 16 ohm speakers.			

Tone controls: BASS ±10 dB at 100 Hz
TREBLE ±10 dB at 10 kHz
High filter: 12 dB/oct. above 9 kHz
Low filter: 12 dB/oct. below 50 Hz
Loudness switch +10 dB at 50 Hz, +4 dB at 10 kHz (Att. −30 dB)

General

System: Superheterodyne fm/a-m, Switching MPX
Complementary symmetry circuit (SEPP OTL)
Direct output coupling

Semiconductors: 3 ICs+4 FETs+11 transistors for reception
2 ICs+34 transistors for auxiliary circuits
29 diodes

Power requirements: 120 V ac, 60 Hz (available in Canada)
100, 120, 220 or 240 V ac~, adjustable (available in European countries)
50/60 Hz

Power consumption: 250 VA (CSA standards)
300 W (IEC standards)

Ac outlet: 1 unswitched, 300 watts (maximum) (only for Canadian model)

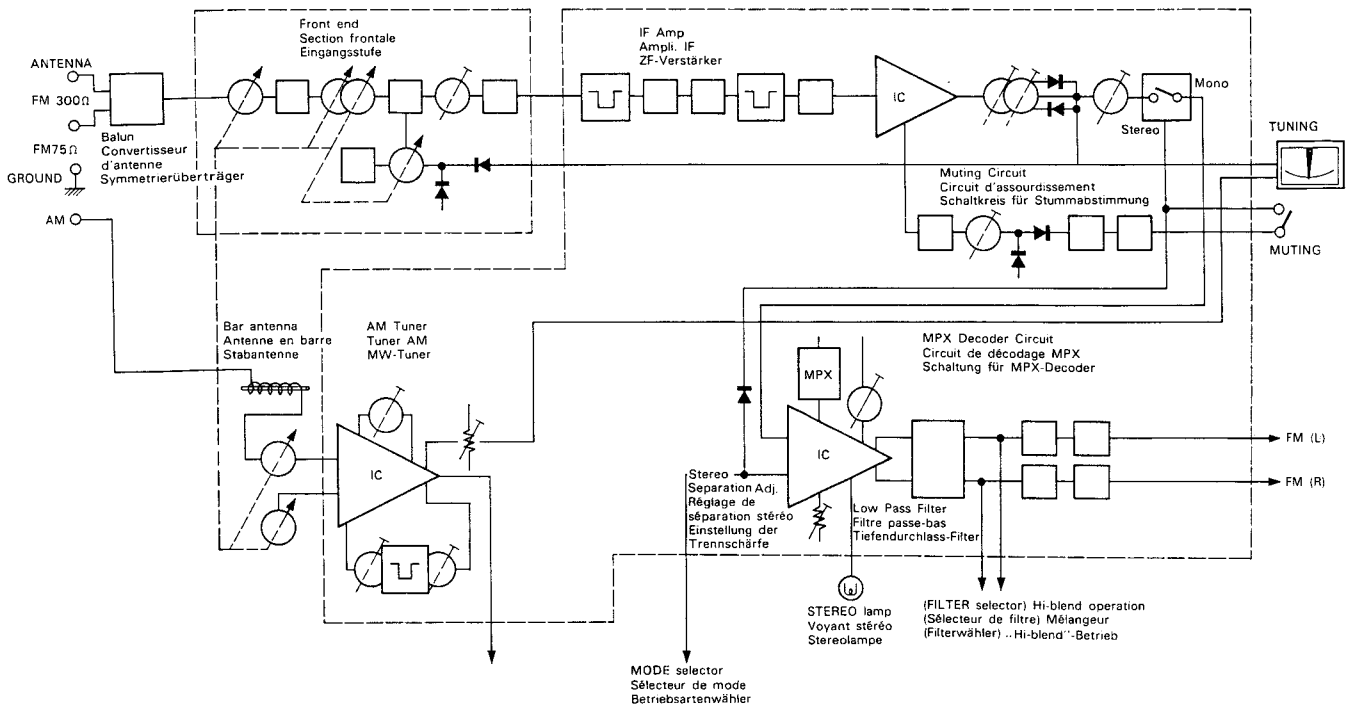
Dimensions: European model
Approx.
440 (w) × 148 (h) × 375 (d) mm
(17 3/8 × 5 7/8 × 14 3/4 inches)
Canadian model
Approx.
471 (w) × 157 (h) × 375 (d) mm
(18 1/4 × 6 1/8 × 14 3/4 inches)
Including projecting parts and controls

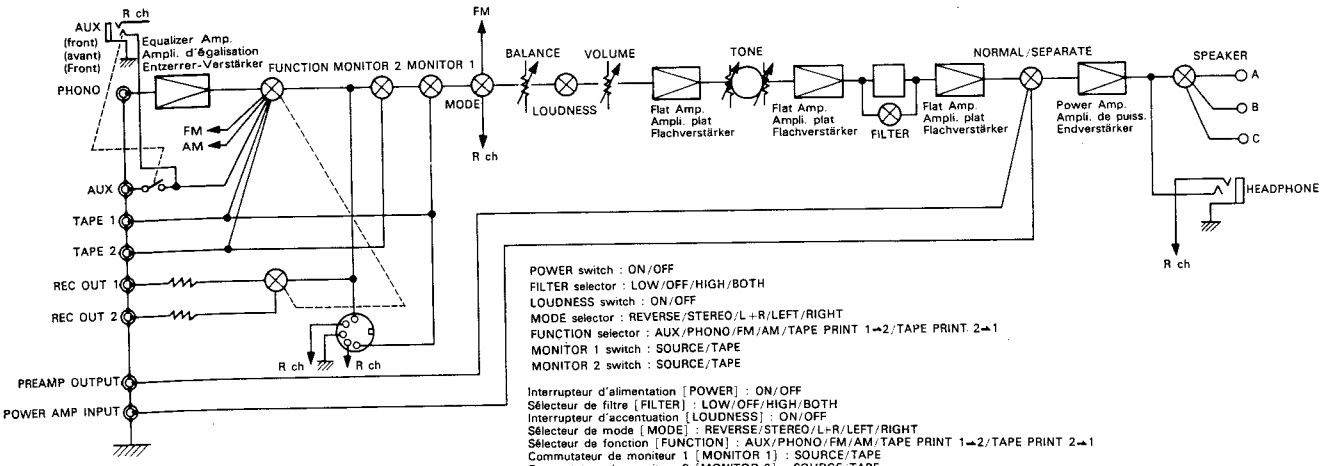
Weight: European model
Approx. 13.3 kg (29 lb 5 oz) (net)
Approx. 16.6 kg (36 lb 10 oz) (in shipping carton)
Canadian model
Approx. 15.3 kg (33 lb 11 oz) (net)
Approx. 18.6 kg (41 lb 2 oz) (in shipping carton)

Supplied accessories:
Fm ribbon antenna (1)
Phono plugs (4)
Binaural plugs (1)
Polishing cloth (1)
Ac power cord (only for the European model) (1)

Design, specifications and circuit diagram subject to change without notice.

BLOCK DIAGRAM/DIAGRAMME SCHEMATIQUE/BLOCKSCHALTBILD





POWER switch : ON/OFF
FILTER selector : LOW/OFF/HIGH/BOTH
LOUDNESS switch : ON/OFF
MODE selector : REVERSE/STEREO/L+R/LEFT/RIGHT
FUNCTION selector : AUX/PHONO/FM/AM/TAPE PRINT 1→2/TAPE PRINT 2→1
MONITOR 1 switch : SOURCE/TAPE
MONITOR 2 switch : SOURCE/TAPE

Interrupteur d'alimentation [POWER] : ON/OFF
Sélecteur de filtre [FILTER] : LOW/OFF/HIGH/BOTH
Interrupteur d'accentuation [LOUDNESS] : ON/OFF
Sélecteur de mode [MODE] : REVERSE/STEREO/L+R/LEFT/RIGHT
Sélecteur de fonction [FUNCTION] : AUX/PHONO/FM/AM/TAPE PRINT 1→2/TAPE PRINT 2→1
Commutateur de moniteur 1 [MONITOR 1] : SOURCE/TAPE
Commutateur de moniteur 2 [MONITOR 2] : SOURCE/TAPE

Netzverstärker[POWER]: ON/OFF
Filterwähler[FILTER]: LOW/OFF/HIGH/BOTH
LOUDNESS-Schalter : ON/OFF
Betriebsartenwähler[MODE]: REVERSE/STEREO/L+R/LEFT/RIGHT
Eingangswähler[FUNCTION]: AUX/PHONO/FM/AM/TAPE PRINT 1→2/TAPE PRINT 2→1
Mithörschalter 1[MONITOR 1]: SOURCE/TAPE
Mithörschalter 2[MONITOR 2]: SOURCE/TAPE